

- REMARKS -

The present amendment replies to a Non-Final Office Action dated June 1, 2006.

Claims 1-10 are pending in the present application. In the Non-Final Office Action, the Examiner rejected pending claims 1-10 on various grounds. The Applicants respond to each ground of rejection as subsequently recited herein and respectfully request reconsideration of the present application.

35 U.S.C. §102 & §103

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the . . . claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Thus, to warrant the §102(a or e) rejection, the references cited by the Examiner must show each and every limitation of the claims in complete detail. The Applicants respectfully assert that the cited reference fails to do so.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Non-Finally, the prior art references when combined must teach or suggest all the claim limitations. See MPEP 2143. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). See MPEP 2143.03. The Applicant respectfully asserts that the cited references fail to teach or suggest all the claim limitations.

A. Claims 1-9 were rejected under 35 U.S.C. §102(a or e) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,417,127 to Yamamoto, *et al.* (the *Yamamoto* patent).

The Applicants respectfully assert that the *Yamamoto* patent fails to teach or suggest all the claim limitations. The *Yamamoto* patent fail to disclose, teach, or suggest polycrystalline alumina components that contain at most 0.5 wt-% ZrO₂ as an additive with a real in-line transmission RIT \geq 30% measured over an angular aperture of at most 0.5° at a sample thickness of 0.8 mm and with a monochromatic wavelength of light λ , as recited in independent claim 1.

At most, the *Yamamoto* patent discloses a translucent polycrystalline ceramic with 0.05 mol% ZrO₂ with a measured linear transmittance of 25 percent for a 0.5 mm thick test piece. *See* Test Piece 12 in Tables 5 and 6. The measured linear transmittance of 25 percent is less than the real in-line transmission RIT of greater than or equal to 30% as claimed. This is true even though the *Yamamoto* patent is using a 0.5 mm thick test piece, which would be expected to improve transmittance over the sample thickness of 0.8 mm as claimed. For comparison, the present application includes results for two translucent polycrystalline ceramic samples with 0.04 wt-% ZrO₂ (about 0.033 mol% ZrO₂). The samples 5 and 6 have a real in-line transmission RIT of 60 and 47.1, respectively, well above the real in-line transmission RIT of greater than or equal to 30% as claimed. *See* Table 1. This comparison is conservative, because an even higher real in-line transmission RIT would be expected if the molar concentration were the 0.04 mol% ZrO₂ of the *Yamamoto* patent rather than 0.033 mol% ZrO₂ tested. *See* Table 1 of the present application. Therefore, the translucent polycrystalline ceramic of the *Yamamoto* patent does not possess the characteristics of the polycrystalline alumina components of the present application.

Claims 2-9 depend directly or indirectly from independent claim 1 and so include all the elements and limitations of independent claim 1. The Applicants therefore respectfully submit that dependent claims 2-9 are allowable over the *Yamamoto* patent for at least the same reasons as set forth above with respect to independent claim 1.

Withdrawal of the rejection of claims 1-9 under 35 U.S.C. §102(a or e) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as being obvious over the *Yamamoto* patent is respectfully requested.

B. Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over the *Yamamoto* patent in view of U.S. Patent No. 5,028,362 to *Jenney, et al.* (the *Jenney* patent).

The Applicants respectfully assert that *Yamamoto* and *Jenney* patents, alone or in combination, fail to teach or suggest all the claim limitations of claim 10. As discussed in Section A above, the *Yamamoto* patent fails to disclose, teach, or suggest polycrystalline alumina components that contains at most 0.5 wt-% ZrO_2 as an additive with a real in-line transmission RIT $\geq 30\%$ measured over an angular aperture of at most 0.5° at a sample thickness of 0.8 mm and with a monochromatic wavelength of light λ , as recited in independent claim 1. The *Jenney* patent also fails to disclose, teach, or suggest these elements. Claim 10 depends indirectly from independent claim 1 and so includes all the elements and limitations of independent claim 1. The Applicants therefore respectfully submit that dependent claim 10 is allowable over the *Yamamoto* and *Jenney* patents for at least the same reasons as set forth above with respect to independent claim 1.

Withdrawal of the rejection of claim 10 under 35 U.S.C. §103(a) as being unpatentable over the *Yamamoto* patent in view of the *Jenney* patent is respectfully requested.

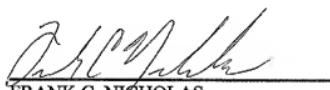
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SUMMARY

Reconsideration of claims 1-10 is respectfully requested in light of the remarks herein. The Applicants submit that claims 1-10 fully satisfy the requirements of 35 U.S.C. §§102, 103, and 112. In view of foregoing remarks, favorable consideration and early passage to issue of the present application are respectfully requested.

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Respectfully submitted,



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